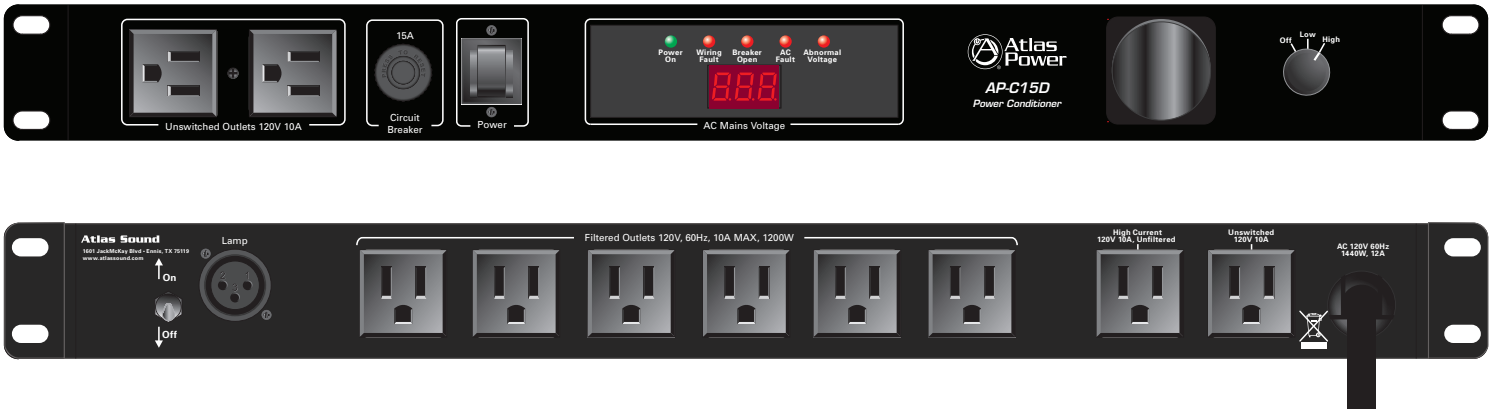
Atlas Power



AP-C15D Power Conditioner

Atlas
1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.
Telephone: 800.876.3333 • Fax: 800.765.3435

Specifications are subject to change without notice.

Table of Contents

Safety Instructions 3

Introduction 5

Key Features 6

Applications 6

Front Panel Features 6

Rear Panel Features 8

Installation 8

Troubleshooting Guide 9

Specifications 10

Warranty 12

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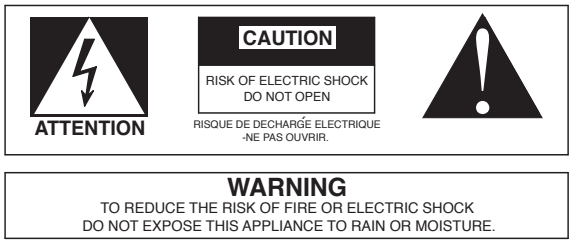
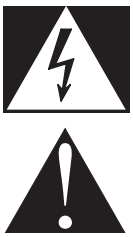
Safety Instructions





The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage " within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled, or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. **WARNING:** To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as a vase, should not be placed on this apparatus.
16. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
17. The mains plug of the power supply cord shall remain readily operable.

CAUTION – When Installing the Product

- Plugging in or unplugging the power cord with wet hands may result in electric shock.
- Never move the unit with the power cord plugged into the wall, as damage to the power cord may result.
- When unplugging the cord from the wall, grasp the plug, NOT the cord.
- Never install this product in humid or dusty locations, nor in direct sunlight, near sources of heat, or in areas where sooty smoke or steam are present. Fire and electric shock may result.
- Keep all sides of the unit at least 3½" away from objects that may obstruct air flow to prevent the unit's internal temperature rise.

WARNING – When the Device is in Use

- To prevent electric shock, do not remove the product cover as there are high voltage components inside. Refer all servicing to Atlas Sound.
- Should any of the following irregularities occur during use, immediately switch off the power, disconnect the power cord from the AC outlet and contact Atlas Sound. Do not to attempt to continue operation with the product as this may cause fire or electric shock:
  - Smoke or strange smell coming from the unit.
  - If the product falls or the case is damaged.
  - If water or any metallic objects falls into the product.
  - If the power supply cord is damaged in any way.
  - If the unit is malfunctioning.
- Do not insert or drop metallic objects or flammable materials into the ventilation holes of the product's cover, as this may result in electric shock or fire.
- Do not place any containers with liquid or metallic objects on the top of the product. If any liquid spills into the unit, fire or electric shock may result.
- Never operate this product or touch the power supply cord during an electrical storm, electric shock may result.
- Never exceed the wattage on the product when connecting equipment. Fire and/or property damage may result.
- Operate the product only with the voltage specified on the unit. Fire and/or electric shock may result if a higher voltage is used.
- Do not modify, kink, or cut the power cord. Do not place the power cord in close proximity to heaters and do not place heavy objects on the power cord, including the product itself, doing so may result in fire or electrical shock.
- Ensure that the safety ground terminal is connected to a proper ground. Never connect the ground to a gas pipe as a catastrophic disaster may result.
- Be sure the installation of the product is stable, avoid slanted surfaces as the product may fall and cause injury or property damage.

CAUTION – When the Device is in Use

- Never place heavy objects on the product, causing it to fall and/or break, resulting in personal injury and property damage. In addition, the product itself may fall and cause injury and property damage.
- Contact Atlas Sound for instructions on cleaning the inside of the unit. Large accumulations of dust inside the unit may result in heat buildup and fire.
- Ensure that the power supply plug is securely plugged into the wall outlet. Never allow dust to accumulate on the power plug or inside the wall outlet.
- When cleaning the unit or the unit is not to be operated for an extended time period, unplug the power cord from the wall.

Introduction

Thank you for purchasing the Atlas Power AP-C15D AC Power Conditioner. The AP-C15D has been designed to meet most installation requirements for AC power distribution and equipment power protection. The 15A compact 1 RU unit AC Mains Voltage can be monitored via the front panel from the precision Digital Volt Meter. To light your rack, the AP-C15D has incorporated a front panel pull-out dimmable LED tube light. The rear of the rack can be illuminated by the optional 18" gooseneck LED lamp connected via an XLR style socket. LED lamps are far superior in longevity along with heat reduction when compared to traditional incandescent lamps and the XLR base mounts offer a better connection point over commonly used BNC type bases..

The AP-C15D features noise filtering for unwanted Radio Frequency Interference (RFI) that is commonly introduced into the AC lines by nearby radio transmitters or wireless products. EMI filters are incorporated to reduce noise from Electromagnetic Interference (EMI) from such items as electric motors, switching power supplies and lightning. The benefit of these filters can be seen on video products or audibly by reducing static pops and external signal interference.

Unstable AC Mains voltage is one of the main reasons for equipment failure. AC Spikes, or Transients, are commonly caused by lightning storms or utility power plant grid switchovers. The amount of energy that can be injected into the power system can be immense with voltages reaching 6KV or amperage peaks of 3000A. These spikes are very fast and usually only last for a very short period of time. To protect against this potential problem, the AP-C15D features Dual Clamping Suppression technology (DCS). If a spike intrudes the AC system, the AP-C15D incoming AC Mains has special suppression circuitry to eliminate the unwanted energy, and in the unlikely event of any energy getting pass the first stage, each output section has redundant DCS circuitry clamping the unwanted energy. This circuitry is very fast and can suppress unwanted energy within a nanosecond, while sustaining the suppression up to 2 milliseconds, thus ensuring virtually trouble free protection.

High and low AC Main line voltages are another major contributor to equipment failures. High line can also be known as surges. Surges usually are a slower steady state rise in voltages ranging from 128VAC and up. They can be caused from fluctuations from the utility company's power lines, or industrial equipment turning on and off, and is on the same power leg of the building's incoming AC. Low line is also known as brownouts. This happens when the AC Mains drops below 107VAC. Most of the time this is caused by the utility company not being able to supply enough power during heavy utility consumption time periods, such as heat waves. Long transmissions could be another factor of voltage drops in AC lines. The AP-C15D will not only inform you if one of these conditions occurs, but under extreme variances in the AC Mains, it will shut off the power to the equipment off. The Abnormal Voltage indicator on the front panel will flash if the AC Mains is between 128VAC and 132VAC or 107VAC and 101VAC. This is to inform you that a surge occurred and may have damaged voltage sensitive equipment. If an extreme voltage swing occurs above 132VAC or below 101VAC, the AP-C15D Extreme Voltage Shutdown (EVS) protection circuit will automatically activate and turn all outlets off until it is manually reset.

The AP-C15D offers intelligent power management control, along with noise filtering and spike/surge protection making it the most compact, effective power management protection system on the market today.

Key Features

- 10 Total Outlets Are Provided
- 8 Rear Panel Outlets
- 2 Front Panel and 1 Rear Panel Unswitched Convenience Outlets
- RFI Noise Filtering to Reduce Radio Frequency Interference
- EMI To Reduce Electromagnetic Interference
- Dual Clamping Spike & Surge Suppression, DCS Circuitry
- Front Panel Digital AC Mains Voltmeter
- LED Indication of Reversed "Live" and "Neutral" Wiring
- Abnormal AC Line Voltage Indicator for Voltages Between 101V–107V or 128V–132V
- Extreme Voltage Shutdown (EVS) Below 101V or Above 132V AC Line
- Circuit Breaker Protection @ 15A Indicated by "Breaker Open" Indicator
- Front Mounted Pull-out LED Light With 2-Position Dimmer
- Rear Mounted XLR Connector for 12VDC LED Lamp

Applications

The AP-C15D was designed to be flexible with features that allow it to be used in a variety of applications. The AP-C15D can be used solely for protection against lightning strikes or voltage surges or for AC Mains Voltage Monitoring. If fuzzy video or frequent static pops occur, the AC power conditioning will eliminate or reduce those inconveniences. The following are just a few examples of applications the AP-C15D can be used:

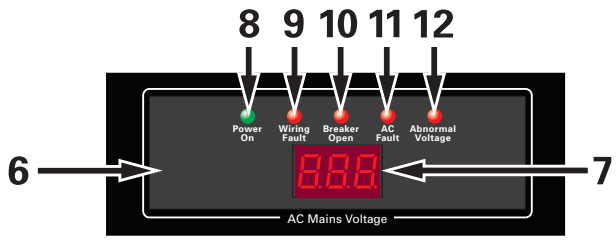
- Restaurants
- Houses of Worship
- Schools
- Home Theaters
- Office Buildings
- Sports Bars

Front Panel Features

1. Unswitched AC Outlet – The two 120VAC outlets are always live when the AP-C15D power cord is plugged into an AC mains

power source and voltage is present. If voltage is present at the outlets, it will be displayed on the AC Mains Meter. Note: The AC mains power switch does not affect the Unswitched AC Outlets. The Unswitched Outlets are protected by the surge protection circuitry, but will not be shut off by the EVS circuit.

2. AC Mains Breaker – The 15A rated breaker will open if the combined draw of all AC outlets exceeds 15A. Note: The breakers are designed to exceed their rating for a short period of time. If the breaker is tripped, to reset you must first remove the load from the AP-C15D and push the center button in on the breaker.
3. Power Switch – To turn the AP-C15D on or off, press the switch to the ON or OFF position.
4. Pull Out Light – The LED light is designed to be pulled out when needed.
5. Pull Out Light Dimmer Switch – The Pull Out Light can be turned "On" or "Off" by this switch. There are also two brightness settings.
6. AC Mains Function Display



7. AC Mains Voltage Display – This display will illuminate when the AC Mains power cord is plugged into an AC source. Note: the display has a 1.5% tolerance.
8. Power ON LED – Will illuminate green when the AC Mains Power Switch is in the ON Position.
9. AC Mains Wiring Polarity Fault Indicator – The Red LED will illuminate if the AC Mains Power Cord is plugged into an AC Mains outlet that is wired incorrectly, such as when the AC "Hot" and the AC "Neutral" are wired backwards.
10. AC Mains Breaker Indicator – This Red LED will illuminate if the maximum unit current draw is exceeded. The breaker rating is 15A, but will handle higher peaks for a short period of time. The LED will illuminate until the AC Mains Breaker is reset.
11. AC Fault Indicator – Although the Dual Clamping Suppression (DCS) circuit virtually assures protection from most transient voltage spikes and surges. Nature has a way of occasionally creating electrical forces that are beyond the capabilities of any device to absorb without some degree of damage. In the rare instance that this occurs and the DCS circuit has been damaged, the Red "AC Fault" LED indicator will illuminate and an internal buzzer will sound. The AP-C15D will also shut off permanently until the unit is repaired. NOTE: If the AC Fault LED is illuminating it is important to have all equipment that was connected to that AC Mains Line be inspected for proper operation.
12. AC Mains Abnormal Voltage Indicator – This LED flashes under several AC Mains fault situations listed below. Normal operating voltages for AC Mains voltage is considered to be between 108VAC and 127VAC. Any voltages exceeding those parameters are considered a risk to damage equipment plugged into the AP-C15D.

    High AC Line Mains – The Abnormal Voltage LED will flash between 128VAC – 132VAC indicating possible damage may occur to equipment due to high AC Mains voltage. The AP-C15D outlets will remain active but the LED will stay flashing even if the voltage returns to a normal operating range. To stop the LED from flashing the Power switch must be cycled "Off". Note: It is recommended prior to proceeding to have the AC Mains inspected by an electrician.

    Low AC Line Mains – The Abnormal Voltage LED will flash between 101VAC – 107VAC indicating possible damage may occur to equipment due to low AC Mains voltage. The AP-C15D outlets will remain active but the LED will stay flashing even if the voltage returns to a normal operating range. To stop the LED from flashing the Power Switch must be cycled "Off". Note: It is recommended prior to proceeding to have the AC Mains inspected by an electrician.

    Extreme High AC Line Mains – If the AC Mains reach 133VAC, the EVS (Extreme Voltage Shutdown) circuit will be triggered to shut off the AC outlets while activating the Abnormal Voltage LED. The Red LED will illuminate steady and the AC Mains Voltage Meter will flash OL (Overload), indicating possible damage may occur to the equipment plugged into the AP-C15D due to high AC Mains voltage. The AP-C15D outlets will remain off until the Power Switch is cycled "Off". Note: It is recommended prior to proceeding to have the AC Mains inspected by an electrician.

    Extreme Low AC Line Mains – If the AC Mains lowers to 101VAC, the EVS (Extreme Voltage Shutdown) circuit will be triggered to shut off the AC outlets while activating the Abnormal Voltage LED. The Red LED will illuminate steady and the AC Mains Voltage Meter will flash OL (Overload), indicating possible damage may occur to the equipment plugged into the AP-C15D due to low AC Mains voltage. The AP-C15D outlets will remain off until the Power Switch is cycled "Off". Note: It is recommended prior to proceeding to have the AC Mains inspected by an electrician.

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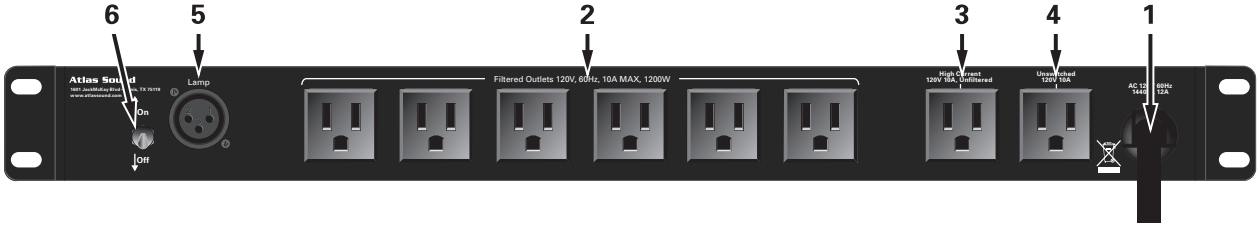
Rear Panel Features



1. AC Mains Input – Connect the 9' (3m) power cord to a 15A 120VAC outlet to provide power to the AP-C15D.
2. AC Filtered Outlets – The five AC outlets are "Live" when the power switch is activated. These outlets are recommended for products such as Computers, Modems, Routers, DSP Processors, Cable/SAT, DVD, or CRT TVs. These outlets have a special filter circuit that is optimized to reduce interference to your Digital and Analog components. The total maximum draw for this section is 10A and the total current draw for the AP-C15D is 15A.
3. AC High Power Outlet – This outlet is designed to deliver maximum current to power hungry components like amplifiers and projectors. It does not harm low power consuming components when connected to this outlet.
4. Unswitched AC Outlet – This 120VAC outlet is always live when the AP-C15D power cord is plugged into an AC mains power source and voltage is present. If voltage is present at the outlets it will be displayed on the AC Mains Meter. Note: The AC mains power switch does not affect the Unswitched AC Outlets. The Unswitched Outlets are protected by the surge protection circuitry but will not be shut off by the EVS circuit.
5. XLR Light Socket – A 12VDC XLR light socket provides power for the optional ECS-GNL light.
6. Light Socket Power Switch – This switch turns the XLR light socket ON / OFF.

Installation

Before installing we strongly suggest you read the entire manual to ensure you benefit from all the features of the AP-C15D. The AP-C15D can be placed on a shelf or rack mounted in a standard 19" width rack. Placement within a rack is not critical but the rack should be within 6' of a dedicated 15A AC outlet. Always make sure the 15A outlet is properly inspected by a certified electrician prior to connecting the AP-C15D. Below are a few installation tips.

- After plugging the AP-C15D into a 15A AC Mains outlet inspect the Wiring Fault LED for illumination. The LED should not be on.
- Inspect the equipment that is to be plugged into the AP-C15D to ensure it does not exceed 15A total amperage draw.
- Divide the equipment into two categories. Pick the outlets that match the outlets equipment use.

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Troubleshooting Guide

Issue:	Wiring Fault LED is illuminated.
Possible Cause:	AC Mains outlet is wired incorrectly.
Action Needed:	Contact a certified electrician to inspect the building's wiring.

Issue:	No power to the AC outlets.
Possible Cause:	Circuit breaker has tripped due to excessive load.
Action Needed:	Remove one piece of equipment from the AP-C15D, and push the breaker reset tab located on the front panel. *Note: We suggest first locating the highest power-consumer such as a power amplifier and disconnecting or turning down that unit. If the AP-C15D breaker continues to trip, relocating some of the gear may be required.*

Issue:	No power to the AC outlets, "Abnormal Voltage" indicator is illuminated, the Volt Meter is Flashing and you hear a buzzer from the unit.
Possible Cause:	The AC Mains Voltage exceeded 132VAC or the voltage dropped below 101VAC
Action Needed:	Measure the AC mains before the AP-C15D. If the voltage is between 117VAC and 123VAC you may proceed to reset the AP-C15D by restarting the start up sequence. *Note: It is important to have all equipment that was connected to that AC Mains Line to be inspected for proper operation. If the problem persists, contact your local power company for the cause of unstable AC line conditions.*

Issue:	Abnormal LED Flashing and you have power to all outlets.
Possible Cause:	The AC Mains Voltage exceeded 128VAC or the voltage dropped below 107VAC
Action Needed:	The AP-C15D must be reset to turn off the LED. Measure the AC mains before the AP-C15D. If the voltage is between 117VAC and 123VAC you may proceed to reset the AP-C15D by cycling the Power Switch off / on. *Note: It is important to have all equipment that was connected to that AC Mains Line inspected for proper operation. If the problem persists, contact your local power company for the cause of unstable AC line conditions.*

Issue:	AC Fault LED is Flashing, a buzzer is sounding and you have no power at any outlets.
Possible Cause:	Although the Dual Clamping Suppression (DCS) circuit virtually assures protection from most transient voltage spikes and surges, nature has a way of occasionally creating electrical forces that are beyond the capabilities of any device to absorb without some degree of damage. In the rare instance that this occurs, the DCS circuit has been damaged during the suppression.
Action Needed:	If this happens, the AP-C15D will shut off and the unit will need to be repaired or replaced. It is important to have all equipment that was connected to that AC Mains Line inspected for proper operation.

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Specifications

Type	Power Conditioner & Suppressor
Load Rating	15A

Front Panel

Outlets	2 Unswitched
Lights	1 Pull Out LED with Dimmer Switch
Activation Switch	Rocker
Circuit Breaker	15A Resettable
AC Mains Voltmeter	Three Digits, Digital
Indicators	AC Power On, Abnormal Voltage, AC Fault, Breaker Open, Wiring Fault

Rear Panel

AC Outlets	8 Outlets total, 6 Filtered, 1 High Power Non-Filtered, 1 Unswitched Connector
LED Light Socket	XLR Socket to provide 12VDC for optional 18" Gooseneck Lamp.
LED Light Switch	Two position (On / Off)
AC Mains Power Cord	9' (3m), 14-gauge

Technical Data

Current Rating	15 amps
Operating Voltage	102VAC – 132VAC
High Voltage Surge Protection	Trigger at 133VAC, 1ms typically
Low Voltage Protection	Trigger 101VAC, 1ms typically
Voltmeter Accuracy	±1.5VAC
Spike Protection Modes	DCS (Dual Clamping Suppression) Circuitry on Incoming AC Mains and Each Section Output
Min. Spike Clamping Voltage	460VRMS @ 3,000A
Max. Spike Clamping Voltage	6000V
Max. Spike Clamping Resp. Time	1 nanosecond
Spike Clamping Voltage @ 100A	1250Vp for 20µs
Maximum Surge Current	6,500A
Energy Rating @ 2ms	2000 Joules
Noise Attenuation EMI/RFI	10dB @ 10kHz / 40dB @ 100kHz / 100dB @ 10MHz
Temperature Range	5° – 35°c
Humidity Range	5% to 95% R.H.

Mechanical

Chassis Finish	Black
Mounting	Rack Mount, 1 RU
Height	1.75" (1RU, 44.5mm)
Width	19" (215.9mm)
Depth	8.5" (548.64mm)
Weight	7.6 lbs (3.45kg)
Power Consumption	12 watts
Agency Listings	MET (UL 1449 Code)

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Notes

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Limited Warranty

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of five years on all Atlas Sound products including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: three years on Atlas Sound Strategy Series Power and Mixer Amplifiers; one year on electronics and control systems; one year on replacement parts; 90 days on Soundolier branded wireless products and one year on year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. Atlas Sound will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any non-warranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Atlas Sound does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Should your AP-C15D require service, please contact the Atlas Sound warranty department at 1-877-689-8055, ext. 277 to obtain an RA number.

Atlas Sound Tech Support can be reached at 1-800-876-3333.

Visit our web site at www.AtlasSound.com to see other Atlas products.

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